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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,419	11/06/2001	Jun-Ichi Matsuda	G0126.0211/P211	6848

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Steven I. Weisburnd
Dickstein Shapiro Morin & Oshinsky LLP
41st Floor
1177 Avenue of the Americas
New York, NY 10036

EXAMINER	
CONTEE, JOY KIMBERLY	
ART UNIT	PAPER NUMBER
2686	

DATE MAILED: 01/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/993,419	MATSUDA, JUN-ICHI	
	Examiner	Art Unit	
	Joy K. Contee	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,4,6,11-15,18,19,24 and 25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,4,6,11 and 24* is/are rejected.

7)☒ Claim(s) *12-15,18 and 19* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/19/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Allowable Subject Matter

1. Claims 12-15, 18,19 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The indicated allowability of claims 9-10 is withdrawn in view of previously used reference to Knapp, U.S. Patent No. 5,218,356. Rejections based on the newly cited reference follow.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Segev, U.S. Patent No. 5,566,022, in view of Knapp, U.S. Patent No. 5,218,356.

Regarding claim 1, Segev discloses a wireless communication network for communication between first and second rooms separated by a partition, and comprising:

first and second wireless communication apparatuses having radio irradiating surfaces, said partition having a first surface facing said first room and a second surface facing said second room, and said first wireless communication apparatus being

installed so that the radio Irradiating surface thereof is adhered to the first surface of said first room, said second wireless communication apparatus being installed so that the radio irradiating surface thereof is adhered to the second surface of said second room and, thus, said first and second wireless communication apparatuses establishing a wireless connection by setting said partition as a radio transmitting medium (col. 4,lines 44-57 see Fig. 2).

Segev fails to show wherein one of said first and second wireless communication apparatus comprises a first,second,third and fourth physical layer and a data link.

In a similar field of endeavor, Knapp discloses a wireless communication apparatus comprising:

a first physical layer circuit (i.e., reads on transponder 1 out of 2) for transmitting data to a wired communication network (i.e., reads on LAN workstations) (col. 4,lines 51-55); and

a second physical layer circuit (i.e., reads on transponder 2 out of 2) for transmitting data via a wireless connection, wherein a repeater function (via relay sections) is implemented by transmitting data between said first physical layer circuit and said second physical layer circuit (col. 3,line 56 to col. 4,line 55).

a third physical layer circuit (i.e.,reads on transponder 1 out of 2) for transmitting data to a wired communication network (i.e., reads on LAN workstations) (see Knapp, col. 4,lines 51-55); and

a fourth physical layer circuit (i.e., reads on transponder 1 out of 2) for transmitting data to a wired communication network (i.e., reads on LAN workstations) (see Knapp, col. 4,lines 51-55); and

a data link layer circuit for processing data inputted by said third physical layer circuit every data frame and outputting it to said fourth physical layer circuit, and processing data inputted by said fourth physical layer circuit every data frame and outputting it to said third physical layer circuit, and said data link layer circuit outputs only data to be outputted to said third or fourth physical layer circuit to implement a bridge function (i.e., reads on radio couplers 30) (see Knapp, col. 4,lines 11-33).

Regarding claim 11, the combination of Segev and Knapp disclose the wireless communication apparatus which is used for the wireless communication network according to 1 and comprising signal intensity display means for displaying an intensity of a signal which is received from said wireless connection (see Knapp, col. 4,lines 51-67).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the combination to include a display indicating the intensity of the signal for the purpose of allowing operators the knowledge of the effectiveness of the repeater system.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Segev, and Knapp, in further view of Driessen.

Regarding claim 3, Segev as modified by Knapp discloses a wireless communication network according to claim 1, wherein said first and second wireless

communication apparatuses respectively transmit a radio signal whose carrier frequency is 10 GHz or more, via said wireless connection (see Driessen, col. 7,lines 8-13).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Segev and Knapp to include transmitters operating with a frequency of 10GHz of more (i.e., 19GHz) for the purpose of using as a wireless extension of a PON or similar networks as taught in Driessen (col.7,lines 7-18).

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Segev and Knapp, in further view of Macdonald et al. ("Macdonald"), U.S. Patent No. 5,835,128.

Regarding claim 4, Segev as modified by Knapp discloses a wireless communication network according to claim 3, but fails to explicitly disclose wherein said first and second wireless communication apparatuses respectively transmit a radio signal whose carrier signal ranges 55 GHz to 65 GHz, via said wireless connection.

In a similar field of endeavor, Macdonald discloses wherein said first and second wireless communication apparatuses respectively transmit a radio signal whose carrier signal ranges 55 GHz to 65 GHz, via said wireless connection (col. 6,lines 58-67).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the combination to include the above frequency range for the purpose of including the V-band range for possible incoming television signals or the like. over

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Segev, and Knapp, in further view of Levy, U.S. Patent No. 6,275,886.

Regarding claim 6, the combination of Segev and Knapp disclose a wireless communication network according to claim 1, but fails to disclose wherein said wired communication network is a network which conforms to an IEEE1394 standard.

In a similar field of endeavor, Levy discloses a repeater in a IEEE 1394 environment.

At the time of the invention it would have been obvious to one of ordinary skill in the art to modifiy Segev and Knapp to include IEEE 1394 capability for the purpose of utilizing microprocessor based interface arrangements for IEEE 1394 buses.

7. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Segev and Knapp, in view of Driessen et al., U.S. Patent No. 5,936,578.

Regarding claim 24, Segev and Knapp disclose the limitations of claim 1. The combination fails to explicitly disclose wherein said first and second wireless communication apparatuses respectively have transmitting antenna and receiving antenna in which, when an irradiating angle or an angle of field of view is equal to 0 and 45 degrees an antenna gain is equal to a predetermined value or more.

In a similar field of endeavor, Driessen discloses wherein said first and second wireless communication apparatuses respectively have transmitting antenna and receiving antenna in which, when an irradiating angle or an angle of field of view is equal to 0 and 45 degrees an antenna gain is equal to a predetermined value or more (i.e., reads on transmitter or receiver antennas with beamwidths of 15 and 45 degrees respectively in order to produce a signal power with difference of approximately 13 dB). (col. 8,lines 27-37 and col. 9,lines 7-12).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Segev and Knapp to include two antennas with an angle of view between 0 and 45 degrees, with an expected or predetermined antenna gain for the purpose of minimizing the multipath.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joy K. Contee whose telephone number is 571.272.7906. The examiner can normally be reached on Monday through Friday, 5:30 a.m. to 2:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 571.272.7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JC

JOY K. CONTEE
PATENT EXAMINER